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RESPONSE UNDER 37 C.F.R. § 1.116  
EXPEDITED PROCEDURE  
GROUP 1616  
Attorney Docket No. Q57694  
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Nobuhito UEDA, et al.

Appln. No.: 09/485,820

Group Art Unit: 1616

Confirmation No.: 2221

Examiner: N. LEVY

Filed: February 16, 2000

For: ENVELOPED PESTICIDAL FORMULATIONS

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ATTN: BOX AF  
Commissioner for Patents  
Washington, D.C. 20231

Sir:

The Office Action of March 5, 2002 has been considered and its contents carefully considered.

Claims 1, 3, 7, 8, 11 and 12 have been rejected under 35 U.S.C. § 102(e) as anticipated by Levy.

Applicants submit that Levy does not disclose or render obvious the present invention and, accordingly, request withdrawal of this rejection.

The present invention, as set forth in claim 1, is directed to a solid pesticidal formulation enveloped in a water-soluble substance. The solid pesticidal formulation comprises at least one water soluble hydroxy compound selected from the group consisting of alkanols, ethylene glycol,

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propylene glycol, tri- or more valent alcohols, alcoholamines, lactic acid and hydroxy fatty acid esters. The solid pesticidal formulation is a formulation selected from wettable powders, water dispersible granules and water soluble formulations.

The patent to Levy is directed to controlled delivery or controlled release composition and process for treating organisms in a column of water or on land. Levy discloses at column 6, lines 33-36 (and also at column 6, lines 15 to 24) that the controlled release compositions can be placed within a dispenser such as a water soluble polyvinyl alcohol pouch having a continuous outer wall that envelopes the compositions of the Levy.

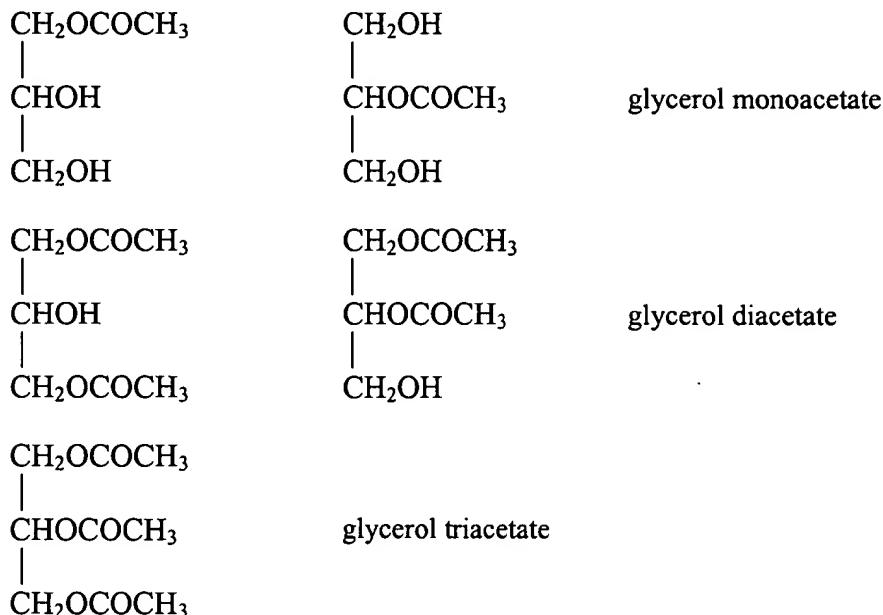
Levy discloses a wide variety of controlled release compositions, and describes a variety of components that can be present in a controlled release composition, but Levy nowhere discloses any examples of a solid pesticidal formulation enveloped in a water soluble substance, where the solid pesticidal formulation comprises at least one water soluble hydroxy compound selected from the compounds set forth in claim 1, and where the solid pesticidal formulation is a formulation selected from wettable powders, water dispersible granules and water soluble formulations.

In the present Office Action, the Examiner relies on the disclosures at column 10 for a teaching of coatings for the regulation of pesticidal release, column 11 for a teaching of specific compounds, and Example 1 of Levy. The Examiner states that column 11 of Levy lists glycerol mono acetate, diacetate and triacetate. The Examiner apparently consider these acetates to satisfy the recitations of the present claims.

Applicants submit that these acetates do not satisfy the recitations of claim 1.

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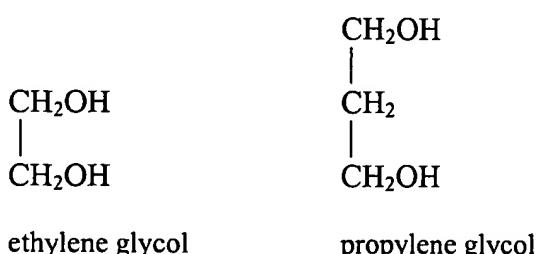
In particular, glycerol monoacetate, glycerol diacetate and glycerol triacetate, upon which the Examiner relies, are the following compounds.



On the other hand, the water soluble hydroxy compounds of the present claims are (1) alkanols, (2) ethylene glycol, (3) propylene glycol, (4) tri- or more valent alcohols, (5) alcoholamines, (6) lactic acid, and (7) hydroxyfatty acid esters.

In the water-soluble hydroxy compounds of the present claims, the (1) alkanols means alkanes having one hydroxy group. Therefore, the glycerol mono-, di- or triacetate of Levy do not satisfy the requirement of an alkanol.

The following compounds are (2) ethylene glycol and (3) propylene glycol, respectively.



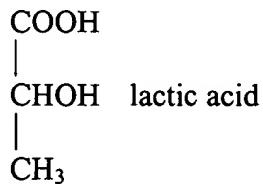
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The glycerol mono-, di- or triacetate of Levy do not satisfy the requirements of ethylene glycol and propylene glycol.

The (4) tri- or more valent alcohols of the present claims require three or more hydroxy groups. The number of the hydroxy group in one molecule of glycerol mono-, di- or triacetate is 2, 1 or 0, respectively. Therefore, the glycerol mono-, di- or triacetate of Levy are not tri- or more valent alcohols.

The (5) alcoholamines of the present claims require the presence of an amine group. The glycerol mono-, di- or triacetate of Levy do not have an amino group. Therefore, the glycerol mono-, di- or triacetate of Levy do not satisfy the (5) alcoholamines of the present claims which require the presence of an amino group.

The following compound is (6) lactic acid.



Therefore, glycerol mono-, di- or triacetate of Levy is not the lactic acid of the present claims.

The (7) hydroxyfatty acid of the present claims means an ester of a hydroxyfatty acid and an alcohol compound. It is a compound in which a hydroxy group exists on a fatty acid portion of the ester compound. Glycerol mono-, di- and triacetate are esters of acetic acid and glycerol. Since acetic acid is not a hydroxyfatty acid, the glycerol mono-, di- or triacetate of Levy do not satisfy the requirements of the (7) hydroxyfatty acids of the present claims.

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Thus, none of the three compounds that the Examiner has identified at column 11 satisfy the requirements of the water soluble hydroxy compound of the present claims.

In addition, in the present Office Action, the Examiner states that in Example 1 of Levy, although the Levy compounds are called coatings, they are admixed. The Examiner does not identify any particular compound in Example 1 upon which he is relying. If the Examiner continues to rely on Example 1 of Levy, applicants request the Examiner to identify with particularity the specific compound or compounds in Example 1 of Levy that the Examiner believes satisfy the water soluble hydroxy compound that is recited in claim 1.

With respect to the Examiner's reference to Example 1 of Levy, applicants do not see where Example 1 discloses a product that satisfies the recitations of claim 1, since there is no disclosure in Example 1 of a water soluble envelope that envelopes a solid pesticidal formulation containing a water soluble hydroxy compound.

With regard to Example 1 of Levy and the Examiner's statement that the Levy compounds in Example 1 are called coatings and are admixed, applicants assume the Examiner believes that the ethyl citrate or cetyl alcohol in Example 1 are the water soluble hydroxy compounds of claim 1, since these are the only compounds in Example 1 of Levy that are present in the coating other than the active ingredient.

Although the Examiner apparently believes that the ethyl citrate in Example 1 of Levy is the hydroxy compound of the present invention, applicants point out that ethyl citrate is not a water soluble hydroxy compound of the present claims. According to the McGraw-Hill Dictionary of Scientific and Technical Terms (Fifth Edition) (a copy of a page of which has been previously submitted), "fatty acid" is defined as an "organic monobasic acid". Therefore, a

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hydroxyfatty acid ester of the present invention is an ester of a hydroxy-substituted organic monobasic acid with an alcohol, and does not include a hydroxytricarboxylic acid ester such as ethyl citrate.

Further, the cetyl alcohol of the Examples in Levy is not water soluble. Applicants enclose a copy of a page from Hawley's Condensed Chemical Dictionary, Fourteenth Edition, for cetyl alcohol, which discloses that cetyl alcohol is "insoluble in water".

Thus, even if one of ordinary skill in the art were to place the powders of Example 1 of Levy in a water-soluble envelope, one still would not arrive at the present invention because the powder of Example 1 of Levy does not contain a water soluble hydroxy compound as recited in the present claims.

The Examiner states in the present Office Action that the claims only require the presence of a hydroxyl compound, and a powder or granule or some other water soluble solid form, and that a pesticide doesn't even have to be present. The Examiner states that Levy shows the coatings themselves can be pesticidally active.

In response, applicants submit that the Examiner has not correctly analyzed the recitations of the present claims. As set forth in claim 1, the present claims are directed to a solid pesticidal formulation, and therefore, of necessity, require the presence of a pesticide.

In view of the above, applicants submit that Levy does not disclose or render obvious the presently claimed invention and, accordingly, request withdrawal of this rejection.

Claims 1, 3-5, 7, 8, 11 and 12 have been rejected under 35 U.S.C. § 102(e) as anticipated by Murakami et al in view of JP 08-19803.

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Applicants submit that these references do not disclose or render obvious the presently claimed invention and, accordingly, request withdrawal of this rejection.

The Murakami et al patent discloses a pesticidal composition comprising microcapsules, with each microcapsule encapsulating a solid organophosphorus compound. The microcapsules include a microcapsule wall made of polyurethane. The polyurethane is made by polymerization of polyvalent isocyanate and polyhydric alcohol compounds. Murakami et al disclose, at column 3, lines 38-45, that the polyhydric alcohol compounds for use in the formulation of the polyurethane microcapsule walls include various alcohols, such as, ethylene glycol, butanediol and glycerin. In the present Office Action, the Examiner specifically identifies these three compounds, as disclosed at column 3, lines 38 to 45. The Examiner's reference to column 3, lines 38-45 for a teaching of the use of ethylene glycol, butanediol or glycerin, however, relates to the use of these materials to form the wall material, that is, the envelope material, and does not satisfy the recitations of the present claims that the solid pesticidal formulation comprises at least one water soluble hydroxy compound.

Thus, the Examiner is clearly in error concerning the teachings of Murakami et al. Namely, the ethylene glycol, butanediol and glycerin, which the Examiner specifically relies on, are raw materials for a water-insoluble urethane. They react with isocyanate compounds to form urethane. Therefore, the Examiner's rejection is clearly based on an erroneous assertion that the ethylene glycol, butanediol or glycerin exist in Murakami et al in wettable powders, granules, etc.

In the Office Action, the Examiner also relies on the teachings of Murakami et al at column 4, lines 58 to 60. Murakami et al disclose, at column 4, last paragraph, lines 58 to 62

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that the microcapsules can be formulated into various forms, such as a suspension concentrate, dusts, wettable powders, and granules. This description in Murakami et al of powders and granules are a mode of the microencapsulated pesticide. In contrast, the powders and granules in claim 1 of the present application are formulations to be enveloped. The substances in the microcapsules of Murakami et al are not wettable powders, water dispersible granules or water-soluble formulations.

In summary, Murakami et al do not disclose or suggest a solid pesticidal formulation that comprises at least one water soluble hydroxy compound selected from the compounds set forth in claim 1, which is enveloped in a water soluble substance.

JP A 8-19803 only shows package formulations. It is clear that the disclosures of Murakami et al and JP '803 are very different from each other. Applicants submit that one of ordinary skill in the art would not be led to combining the teachings of these two references, and that there is not teaching or suggestion how such a combination could be made. Applicants submit that one could not easily combine the teachings. Further, even if such a combination were to be made, the resulting combination would not produce the present invention.

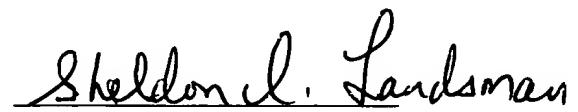
In view of the above, applicants submit that Murakami et al and JP '808 do not disclose or render obvious the presently claimed invention and, accordingly, request withdrawal of this rejection.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,

  
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Date: May 6, 2002